CLAIMS

- 1. A purified polypeptide shown in SEQ ID NO: 2, or a fragment or variant thereof exhibiting at least about 50% sequence homology to the naturally occurring polypeptide, wherein said fragment or variant inhibits platelet function.
- 2. A polypeptide according to claim 1 which interferes with the binding of at least one cell surface integrin with its respective ligand.
- 3. A polypeptide according to claim 2 is wherein the integrin is GPIIb/IIIa ($\alpha_{IIb}\beta_3$) and the ligand is fibrinogen.
- 4. A polypeptide according to claim 2 wherein the integrin is GPIa/IIa $(\alpha_2\beta_1)$ and the ligand is collagen.
- 5. A polypeptide according to claim 2 which interferes with the binding of more than one integrin.
- 6. A polypeptide according to claim 1 which inhibits both platelet aggregation and platelet adhesion.
- 7. A polypeptide according to claim 1 shown in SEQ ID NO: 2.
- 8. A pharmaceutical composition comprising the polypeptide of claim 1.
- 9. A method for treating a patient comprising administering a composition comprising an effective amount of the polypeptide according to claim 1 to the patient to inhibit platelet function.
- 10. A composition for inducing the immune response of a mammal comprising the polypeptide of claim 1.

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- 11. A composition for inducing the immune response of a mammal susceptiable to hookworm infection comprising the polypeptide of claim 1.
- 12. An purified polypeptide isolated or cloned from hookworms selected from the group consisting of Ancylostoma duodenale, Ancylostoma ceylanicum, Necator americanus, and Ancylostoma caninum, which inhibits platelet function.
- 13. A polypeptide according to claim 12 isolated from Ancylostoma caninum.
- 14. A polypeptide according to claim 12 which inhibits the binding of fibrinogen to cell surface integrin GPIIb/IIIa ($\alpha_{\text{IIb}}\beta_3$).
- 15. A polypeptide according to claim 12 which inhibits the binding of collagen to cell surface integrin GPIa/IIa (α, β_1) .
- 16. A polypeptide according to claim 12 which inhibits platelet aggregation in response to an agonist selected from the group consisting of epinephrine, thrombin, and ADP.
- 17. A pharmaceutical composition comprising the polypeptide of claim 12.
- 18. A method for treating a patient comprising administering a composition comprising an effective amount of the polypeptide according to claim 12 to the patient to inhibit platelet function.
- 19. A composition for inducing the immune response of a mammal susceptible to hookworm infection comprising the polypeptide of claim 12.
- 20. The cDNA sequence shown in SEQ ID NO: 1.